Amr GM Linder NJD 002 186 690



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February 28, 2011

Mr. Gary Greulich
New Jersey Department of Environmental Protection
Northern Regional Office
7 Ridgedale Avenue
Cedar Knolls, NJ 07927

RE: Remedial Action Progress Report No. 6 for the Retail Redevelopment Area Portion of the Former General Motors (GM) Linden Assembly Plant, 1016 West Edgar Road, Linden, Union County, New Jersey 07036; DUK059.701.0041.

Dear Mr. Greulich:

On May 26, 2009, the New Jersey Department of Environmental Protection (NJDEP) approved the New Jersey Remedial Action Workplan and RCRA Corrective Measures Proposal Addendum No. 1 (RAWP) for the Retail Redevelopment Area of the Former GM Linden Assembly Plant (Site; SRP PI# 014755; EA ID# SUB090001; BFO File Number: 20-09-24). The May 26, 2009 approval letter requested a Remedial Action Progress Report for the Retail Redevelopment Area on/by November 30, 2009. Subsequent reports are submitted on a quarterly basis.

This letter constitutes Remedial Action Progress Report No. 6 for the Retail Redevelopment Area. Hull & Associates, Inc. (Hull) has prepared this report on behalf of Linden Development LLC (Linden Development) to summarize remedial activities completed on the Site between December 1, 2010 and February 28, 2011.

Requirements, according to N.J.A.C. 7:26E-6.6, are shown below in **bold italics**, with Hull/Linden Development's update following. The report certification required by N.J.A.C. 7:26E-1.5 is included in Attachment A.

- 1. NJDEP requires a description of each planned remedial action
 - i. scheduled to be initiated or completed within the reporting period
 - ii. actually initiated or completed during the reporting period; and
 - scheduled but not initiated or not completed during the reporting period, including the reasons for the noncompliance with the approved schedule.

Soil

As outlined in the approved RAWP, the remedial activities for soils on the Retail Redevelopment Area consist of the following:

a. Establishing deed restrictions or environmental covenants to maintain commercial/industrial land use at the Site;

Campbells Run Business Center, 300 Business Center Drive, Suite 320, Pittsburgh, Pennsylvania 15205 412.446.0315 fax 412.446.0324 www.hullinc.com

- b. Regrading the site to achieve the grade necessary to support the proposed redevelopment;
- c. Constructing building slabs, parking areas and roadways and placing one foot of clean soil over geotextile fabric in future greenspaces to preclude direct contact exposures to future receptor populations and/or provide cover to historical fill material; and
- d. Surveying to demonstrate that all areas are covered with engineering controls (e.g., building slabs, parking areas and roadways) or one foot of clean soil.

These remedial activities are directly related to construction activities associated with the future redevelopment at the Site which are dependent upon finalization of agreements with end users. Linden Development has been working throughout the reporting period to finalize agreements with several end users that will ultimately occupy various portions of the Site. Given that end user agreements have not been finalized, the construction activities described in the RAWP have not yet been initiated.

During the reporting period, Linden Development imported structural fill materials from offsite sources for use during the redevelopment consistent with the RAWP and the Revised Soil and Concrete Reuse Proposal (Revision 1.0) approved by NJDEP. Materials imported prior to and during the reporting period are summarized in Table 1.

Linden Development performed additional sampling within the proposed Walmart parcel as part of internal due diligence requirements for Walmart ground lease negotiations. These additional sampling activities are summarized below.

Walmart-Related Sampling Activities

Initial Walmart-related soil and soil gas sampling activities were conducted between July 16 and July 22, 2010. Additional sampling was conducted in mid-November to further evaluate soil gas findings from the July 2010 activities. Preliminary results of the sampling were discussed with the NJDEP Case Manager, Mr. Gary Greulich, during a project update meeting on December 7, 2010, and a report summarizing the overall investigation findings was submitted to NJDEP in January 2011. Based on the results to date, Mr. Greulich requested shallow groundwater sampling within a portion of the Walmart parcel around soil gas sampling location WSG-3. That groundwater sampling is anticipated to be conducted in late-February or early-March 2010 following approval of the proposed sampling locations.

Groundwater

As outlined in the approved RAWP, remedial actions related to groundwater underlying the Retail Redevelopment Area do not appear to be necessary. However, sporadic historical concentrations of lead in limited monitoring wells have exceeded groundwater quality criteria at the Site, as observed in previous groundwater sampling data. As a result, the NJDEP may consider that an indeterminate Classification Exception Area (CEA) is necessary due to these sporadic exceedances and the presence of historical fill at the Site.

Based on discussions with Mr. Greulich conducted since November 2009, a final determination has not been made on the necessity of an indeterminate CEA. However, if ultimately required, the indeterminate CEA will be established by NJDEP as part of finalizing

Mr. Gary Greulich DUK059.701.0041 February 28, 2011 Page 3

the Site NFA and will include the overburden aquifer within the Site boundaries. As discussed on November 18, 2009 and reiterated during ongoing quarterly meetings, Mr. Greulich currently maintains the information necessary to establish the indeterminate CEA (if ultimately deemed necessary) and no additional submittals by Linden Development are required.

Storm Sewer (AOI-18)

Remedial activities associated with AOI-18 are complete, as documented in Remedial Action Progress Report No. 1 (November 2009).

2. NJDEP requires discussion of problems and delays in the implementation of the RAWP, which should include proposals for corrections.

As discussed above, remedial activities are directly related to construction activities associated with the future redevelopment at the Site which are dependent upon finalization of agreements with end users. Given current economic conditions, the construction activities described in the RAWP will not be implemented until redevelopment deals with end users are finalized.

Linden Development is continuing to pursue finalization of agreements with several end users for the Retail Redevelopment Area. In the interim, conditions at the Site are stable given that GM's original cover types (asphalt, building pads, etc.) remain intact.

3. NJDEP requires proposals for a deviation from, or modification to, the approved RAWP.

No deviations from, or modifications to, the approved RAWP are planned or required at this time.

As discussed during in previous quarterly reports, Hull and Linden Development conducted initial discussions with Gary Greulich on August 24, 2010 regarding potential modifications to engineering control designs within the portion of the Site proposed for the Lowe's development. The potential modifications include using clean fill material below future concrete slabs as the engineering control for direct contact exposures, rather than the concrete slabs themselves as currently outlined in the approved RAWP. Based on the August 24, 2010 discussion, the potential modifications will be acceptable to NJDEP if they are requested. If the modifications are ultimately desired, Linden Development will provide a written request and seek NJDEP's formal approval to implement the modifications prior to finalizing site work for the Lowe's parcel.

4. NJDEP requires submittal of a revised schedule pursuant to N.J.A.C. 7:26E-6.5, to reflect the changes as noted in 1 through 3 above.

In anticipation of finalizing agreements with end users in the immediate future, Linden Development plans to conduct initial site earth work and grading during the next reporting period. Details of the schedule are currently being finalized. General anticipated timeframes are as follows:

Activity	Anticipated Timeframe
Select concrete slab and asphalt removal	April 2011 - May 2011
Grading and placement of imported materials	May 2011 - June 2011
Underground utility construction	June 2011 - August 2011

The schedule for constructing engineering controls will be dependent on finalizing end user agreements. Linden Development will provide additional details as activities progress.

5. NJDEP requires an updated status of all permit applications relative to the critical path schedule.

The permits required for initiation of the remedial activities are summarized below.

Permit/Approval Type	Status	Notes
Planning Board Approval	Approved 1/9/09	Site plan approved by City of Linden Planning Board
NPDES Permit (Storm Water)	Approved 9/16/09	NPDES Permit No. 0088323
Soil Conservation District	Approved 9/16/09	Approved by Somerset-Union Conservation District

6. NJDEP requires a listing of each remedial action to be performed during the next reporting period.

In anticipation of finalizing agreements with end users in the immediate future, Linden Development plans to conduct initial site earth work and grading during the next reporting period. Details of the schedule are currently being finalized. General anticipated timeframes are as follows:

Activity	Anticipated Timeframe
Select concrete slab and asphalt removal	April 2011 - May 2011
Grading and placement of imported materials	May 2011 - June 2011
Underground utility construction	June 2011 - August 2011

7. NJDEP requires costs of each remedial action

- Annual summary of all remedial action costs incurred to date; and
- ii. Revised cost estimate for remedial actions remaining to be performed.

Given that significant construction and remedial implementation has not yet commenced, no remedial costs have been accrued, with the exception of minor costs for the storm sewer cleaning (i.e., approximately \$7,000) reported in Remedial Action Progress Report No. 1.

The cost estimate for completing remedial activities remains consistent with that presented in the RAWP (i.e., approximately \$7,500,000 for earthwork and construction of engineering controls).

8. NJDEP requires a tabulation of sampling results (according to N.J.A.C. 7:26E-3.13(c)3) received during the reporting period and a summary of the data and any conclusions, presented in a format consistent with N.J.A.C. 7:26E-4.8.

During the reporting period, Linden Development imported structural fill materials from offsite sources for use during the redevelopment consistent with the RAWP and the Revised Soil and Concrete Reuse Proposal (Revision 1.0) approved by NJDEP. Soil analytical results associated with the materials imported during this reporting period are tabulated in Attachment B.

As discussed previously, Linden Development conducted additional sampling on behalf of Walmart as part of ground lease negotiations between those parties. The results of the Walmart-related sampling were submitted to NJDEP in January 2011 via a report entitled, *Draft Supplemental Soil and Soil Gas Investigation of the Proposed Walmart Parcel* (December 21, 2010).

- 9. NJDEP requires a summary of active groundwater remedial actions
 - i. groundwater elevation maps with groundwater flow shown immediately before and during active groundwater remediation;
 - ii. graphs depicting changes in concentrations over time for all impacted wells as well as all down-gradient wells;
 - iii. summary of volume of water treated since last reporting period and the total volume treated since active remedial action commenced; and
 - iv. Summary of groundwater contamination, indicating either that contamination remains above applicable standards (include a proposal detailing additional remedial actions) or that concentrations are below applicable standards.

As outlined in the approved RAWP, remedial actions related to groundwater underlying the Retail Redevelopment Area do not appear to be necessary (see discussion under item 1).

- 10. NJDEP requires a summary of natural remediation groundwater remedial actions
 - i. Summary table of the groundwater monitoring results collected; and
 - ii. Conclusions whether data indicate that natural remediation is no longer appropriate (must then also submit a revised RAWP)

As outlined in the approved RAWP, remedial actions related to groundwater underlying the Retail Redevelopment Area do not appear to be necessary (see discussion under item 1).

- 11. NJDEP requires a description of all wastes generated as a result of the remedial action
 - i. Tabulation of waste characterization samples collected, including the physical state of the material, volume, number of samples, analyses performed and results;
 - ii. Listing of types and quantities of waste generated by the remedial action during the reporting period as well as to date;
 - iii. Name of the disposal facility used;
 - iv. Transporters' dates of disposal; and
 - v. Manifest numbers of each waste shipment.

No wastes were generated during the reporting period.

Mr. Gary Greulich DUK059.701.0041 February 28, 2011 Page 6

12. NJDEP requires that any additional support documentation that is available also be provided (photos, etc.).

Given that the majority of the remedial activities have not yet been implemented, no additional support documentation is available.

The next scheduled remedial action progress report will include remedial actions completed between March 1 and May 31, 2011. Please feel free to contact Bill Dennis at (412) 446-0315 with any questions regarding the update provided herein.

Sincerely,

Bill Dennis

Senior Project Manager

Attachments

ct:

Brian Strohl - Linden Development, LLC

Clifford Ng – U.S. EPA Region 2

TABLES

LINDEN DEVELOPMENT LLC SITE (FORMER GM LINDEN ASSEMBLY PLANT) 1016 WEST EDGAR ROAD, LINDEN, NJ QUARTERLY REPORT NO. 6 - RETAIL REDEVELOPMENT AREA

TABLE 1 SUMMARY OF FILL MATERIALS IMPORTED AS OF FEBRUARY 2011

Import Date	Source	Supplier	Quantity	Material Type	Anticipated Site Use
Soils and Crus	hed Concrete - Imported Prior to Current	Reporting Period			
Pre-February 2010	City of Rahway, NJ - Former firing range soil stockpile	City of Rahway, NJ	800 cy	Soils	Structural fill to be covered by engineering controls
Pre-February 2010	City of Linden, NJ - 2300 S. Wood Street - soil stockpile from City's Parks Dept.	City of Linden, NJ	2,865 cy	Soils	Structural fill to be covered by engineering controls
April / May 2010	New 121st. Police Precinct -970 Sanders Street, Staten Island, NY - excess soils from construction project	Pure Earth, Inc.	2,973 cy	Soils	Structural fill to be covered by engineering controls
April / May 2010	Newark Public Schools Stadium - excess soils from construction project	AWT Environmental Services, Inc.	3,397 cy	Soils	Structural fill to be covered by engineering controls
May 2010	Newark Brick Tower - Residential Tower Demolition - processed backfill material	DEMREX and Altchem Environmental	15,680 cy	Soils/Crushed Concrete	Structural fill to be covered by engineering controls
June 2010	New 121st. Police Precinct -970 Sanders Street, Staten Island, NY - excess soils from construction project	Pure Earth, Inc.	1,178 cy	Soils	Structural fill to be covered by engineering controls
June 2010	City of Linden, NJ - Library Site - excess soils from construction project	City of Linden, NJ	2,300 cy	Soils	Structural fill to be covered by engineering controls
July 2010	New 121st. Police Precinct -970 Sanders Street, Staten Island, NY - excess soils from construction project	Pure Earth, Inc.	1,516 cy	Soils	Structural fill to be covered by engineering controls
8/24/10	New 121st. Police Precinct -970 Sanders Street, Staten Island, NY - excess soils from construction project	Pure Earth, Inc.	658 cy	Soils	Structural fill to be covered by engineering controls
9/23/10	New 121st. Police Precinct -970 Sanders Street, Staten Island, NY - excess soils from construction project	Pure Earth, Inc.	567 cy	Soils	Structural fill to be covered by engineering controls
9/27/2010	Weldon Materials - crushed stone (virgin source)	Weldon Materials	142 cy	Crushed Stone	Unrestricted (Virgin Source Material)
9/29/2010	Weldon Materials - crushed stone (virgin source)	Weldon Materials	55 cy	Crushed Stone	Unrestricted (Virgin Source Material)
10/5/10	New 121st. Police Precinct -970 Sanders Street, Staten Island, NY - excess soils from construction project	Pure Earth, Inc.	699 cy	Soils	Structural fill to be covered by engineering controls
10/19/10	New 121st. Police Precinct -970 Sanders Street, Staten Island, NY - excess soils from construction project	Pure Earth, Inc.	655 cy	Soils	Structural fill to be covered by engineering controls
		Subtotal:	33,485 cy		

LINDEN DEVELOPMENT LLC SITE (FORMER GM LINDEN ASSEMBLY PLANT) 1016 WEST EDGAR ROAD, LINDEN, NJ QUARTERLY REPORT NO. 6 - RETAIL REDEVELOPMENT AREA

TABLE 1 SUMMARY OF FILL MATERIALS IMPORTED AS OF FEBRUARY 2011

Import Date	Source	Supplier	Quantity	Material Type	Anticipated Site Use
Soils and Crus	hed Concrete - Imported During Current Re	porting Period		·	
12/15/10	New 121st. Police Precinct -970 Sanders Street, Staten Island, NY - excess soils from construction project	Pure Earth, Inc.	328 cy	Soils	Structural fill to be covered by engineering controls
12/16/10	New 121st. Police Precinct -970 Sanders Street, Staten Island, NY - excess soils from construction project	Pure Earth, Inc.	165 cy	Soils	Structural fill to be covered by engineering controls
		Subtotal:	493 cy		
	Total for Soils and Crushed	Concrete Imported to Date:	33,978 cy		
Asphalt Milling	s - Imported Prior to Current Reporting Peri	od		<u> </u>	
Pre-February 2010	City of Linden, NJ - Residential Streets - asphalt millings	City of Linden, NJ	1,434 cy	Asphalt Millings	Subgrade material for future paved areas
		Subtotal:	1,434 cy		
Asphalt Milling	s - Imported During Current Reporting Perio	od .		•	
NA .	None during current reporting period	NA	0		
		Subtotal:	0 cy		
	Total for Aspha	It Millings Imported to Date:	1,434 cy		

ATTACHMENT A

Report Certification

Certification

Linden Development, LLC ISRA Case Number E20040531

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Linden Development, LLC

Bv

William J. DeBoer, Executive V.P.

Sworn to and subscribed to before

me on this 3370 day

Date: 3/33/1/

sund O. Guest

Votary

Deena E. Griest Notary Public-State of Clific My Commission Expires May 29, 2012

ATTACHMENT B

Analytical Results for Samples of Fill Material Imported During this Reporting Period

New 121st Police Precinct - 970 Sanders Street, Staten Island, NY Excess Soils from Construction Project Table B-1 - Summary of Analytical Results (Detected Analytes Only)

												T2-2-1-2-1							<u> </u>									
		Sample ID	TP-1C	TP-10		TP-2C	TP-2G (4'		TP-3G (4.5')		TP-4C	TP-4G (4		TP-6C	_	TP-6G (4.5')		TP-5C		P-5G (5		TP-7C		TP-7G (4.5')		TP-8C		8G (4')
		Sample Date	12/23/2009		/2009	12/23/2009	12/23/2009			┕┼	12/23/2009	12/23/20		12/23/2009	_	12/23/2009	_	2/24/2009	_	<u> </u>		2/24/20	\rightarrow	12/24/2009	_	24/2009		4/2009
Analyte	Units	CasNo		Q	<u> </u>	3	Q	Q	Q	Q	C	21	Q	1 1 1 1	Q		Q ·		Q		Q		ାହା		Q		Q	Q
VOCs	· · · · · · · · · · · · · · · · · · ·						· ·			·								· · · · · ·					:'				<u> </u>	
Acetone	PPB	67-64-1	NT		5 (C NT	5.8	U NT	5.5	U	NT	5,6	U	NT			U ·	NT		6	U	NT			u	NT		5.7 U
Methylene chloride	PPB	75-09-2	NT	3	7	B NT	29	B NT	22	В	NT	21	В	NT		38	В	NT		15	В	NT		231	В	NT		35 B
SVOCs																												
2-Methylnaphthalene	PPB	91-57-6	.130	U N	T	260	U NT	270	U NT	\Box	130 L	J NT			Ü	NT		100	J	NT_		94	J	NT		130		NT
Acenaphthene	PPB	83-32-9	. 130	U N	T	260	U NT	270	U NT	$oxed{LL}$	130 L	J NT.		130	UL	NT		540		NT		130	U	NT		130	U	NT
Acenaphthylene	PPB	208-96-8	130	U N	T	260	U NT	270	U NT		130 L	J NT		130	U	NT		22	J	NT		130	U	NT		130	U	NT
Anthracene	PP8	120-12-7	130	U N	T]	50	J NT	270	U NT	Ш	130L	J NT_		130	.U.	_ NT		530		-NT.	<u> </u>	130	Ū	NT		130	U	NT
Benzo(a)anthracene	PPB	56-55-3	18	J N	Т	350	NT	270	U NT	Ш	130 L) NT		130	U	NT		890		NT		130	U	NT		53	J	NT
Benzo(a)pyrene	PPB	50-32-8		J N	Т	280	NT	270	U NT	Ш	130 L	J NT			U	NT		810	oxdot	NT_		130_	U	NT		62	${f}$	NT
Benzo(b)fluoranthene	PPB	205-99-2		U N	Т	410	NT	270	U NT	L	130 L	J NT			U	NT		1100		NT		130	U	NT		79	J	NT
Benzo(g,h,i)perylene	PPB	191-24-2	130	U N	Ţ	250	J NT_	270	U NT	Ш	130 L	J NT		130	U	NT		540		NT		130	· U	NT		64	J	NT
Benzo(k)fluoranthene	PPB	207-08-9	130	U N		110	J NT	270	U NT	Ш	130 L				U	NT		430	L. L.	NT_	\bot	130	U	NT				NT
Bis(2-ethylhexyl)phthalate	PPB	117-81-7		U. N		120	J NT	270	U NT	\Box	130 L				υ	NT		120	U	NT	$\perp \perp$	29	J	NT			_	NT
Butyl benzyl phthalate	PPB	85-68-7		U N		260	U NT	270	U NT	Ш	130 L				U	NT		120	$^{\circ}$	NT		98	J	NT	_		_	NT
Carbazole	PPB	86-74-8		U N		260	U NT	270	U NT	\sqcup	130 L				υľ	NT		220	otag	NT	44	130	U	NT				NT
Chrysene	PPB	218-01-9	130	U N		280	NT	270	U NT	\sqcup	130 L				U	NT		830	Щ	NT	$\bot\bot$	130	U	NT	4	71		NT
Dibenzo(a,h)anthracene	PPB	53-70-3		U N		260	U NT	270	U NT	\sqcup	130 L		Щ		U	NT		160		NT		130	U					NT
Diethyl phthalate	PPB	84-66-2	130	U N		260	U NT	270	U NT	Щ	130 L		$\perp \! \! \perp \! \! \perp$		U	NT	\perp	120.	U	NT	$\bot \bot$	28	J	NT	_		<u> </u>	NT
Di-n-butyl phthalate	PPB	84-74-2		U N		260	U NT	270	U NT	ш	130 L		Щ.		U	NT	\perp	120	U	NT	+	24	J		\perp			NT
Fluoranthene	PPB	206-44-0		U N		500	NT	270	U NT	ĽН	130 L				Ü	NT		2400	oxdot	NT	$\bot\bot$	130	U			96	_	NT ·
Fluorene	PPB	86-73-7		U N		260	U NT	270	U NT	ш	130 L				U	NT		480		NT		130	U					NT
Indeno(1,2,3-c,d)pyrene	PPB	193-39-5		U N		260	NT	270	U NT	ш	130 L		-		U.	NT		670	oxdot	NT	+	130	U		4-	61	_	NT
Naphthalene	PPB	91-20-3		U N	_	260	U NT	270	U NT	ш	130 L				U	NT	_	210	$\vdash \vdash$	NT	++	43	J					NT
Phenanthrene	PPB	85-01-8		U N		190	J NT	270	U NT	Н	130 L		\dashv		Ų	NT	_	1900	$\vdash \vdash$	NT	++	130	ļυ		<u> </u>			NT
Pyrene	PPB	129-00-0	. 23	J N	1 [450	NT	270	U NT	Ш	130 L	J NT		130	U	NT		1500		NT		130	U	NT	بـــــــــــــــــــــــــــــــــــــ	74	J	NT .
Pesticides	1 1							·		_													1.1	:	<u> </u>			· ·
4,4'-DDD	PPB	72-54-8	3	N N		5.2	NT	2.2	J	ш	14	NT NT	-		U	NT		30	\vdash	NT	++	1.9	J	NT		5.9		NT
4,4′-DDE	PPB	72-55-9		U N	_	1.7	J NT		U	ш	2.5	NT NT	-		U	NT		4.3		NT	++	2.2	U		_			NT L
4,4'-DDT	PPB	50-29-3		U N	_	2.1	U NT		U	-	6.1	NT			U	NT		2.1	U	NT	++	2.2	U					NT
alpha-Chlordane	PPB	5103-71-9		U N		. 4.4	NT	 	U NT	ш	2.2 L				U	NT	_	2.1	U	NT_	++	2.2	U				_	NT
gamma-Chlordane	PPB	5103-74-2	. 2,1	U N	<u> </u>	0.89	J NT	2.3	U NT	Ш	2.2 L	J NT		2.2	U	NT		2.1	υl	NT		2.2	U	NT		2.2	υ	NT
Metals	7			·			·				· · · · · · · · · · · · · · · · · · ·			·											_			·
Aluminum	PPM	7429-90-5	6840	N.	-	5710	NT	5560	NT_	╌	5490	NT		5900	ĿĿ	NT		4830	1	NT.	++	6390		NT	_	4610		NT
Arsenic	PPM	7440-38-2	3.93	N		3.27	NT	3.62	NT	щ	2.63	NT NT	-	2.29	$\vdash \vdash$	NT.	_	3.54		NT	++	3.93	\dashv	NT		2.35		NT
Barium	PPM	7440-39-3	40.5	N.	_	31.3	NT	31.2	NT	⊣	23.9	NT.		25.2	$\vdash \vdash$	NT	-	20.4	\vdash	NT	++	34.4	44	NT	_	21.9	_	NT
Calcium	PPM	7440-70-2	5710	N.		19000	NT	3020	NT	Н	1200	NT.		5670	$\vdash \vdash$	NT		5230	\vdash	NT_	++	4590	-1-1	NT	$\overline{}$	247	_	NT
Chromium	PPM	7440-47-3	15.2	N N		10.9	NT NT	18.2	NT	\vdash	8.8	NT_		9.34	 -	NT	-	9.19		NT_	++	9.64		NT	_	8.41		NT
Cobalt	PPM	7440-48-4	0.428	U N		0.43	U NT	0.808	NT	$\vdash \downarrow$	0.401 L				U	NT NT		0.395	-	NT:	++-	0.418	- U	NT NT	+-'		_	NT
Copper	PPM	7440-50-8	12,6	N		13.9	NT NT	11.9	NT	H	7.84	NT NT		6.36	\vdash	NT	+	13	├-	NT	++	7.94	+			6		NT
Iron	PPM	7439-89-6	15800	N N		12700 13.4	NT	13500	NT	${oldsymbol{arphi}}$	11100	NT NT		13000	$\vdash\vdash$	NT NT	-	12400 17.5		: NT NT	- 	12200	-	NT NT		9040		NT NT
Lead	PPM:	7439-92-1 7439-95-4	13.2 4680	N		9390	NT NT	33.2 2370	NT NT	$\vdash \vdash$	6.35 1920	NT:		5.53	\vdash	NT NT	+	3720 : :	├├	NT ·	+	8,55 1580	+H	NT:	_	4.61 1320	_	NT NT
Magnesium Magnese	PPM	7439-95-4	204	N N		174			NT	⊢┼		NT.	\dashv	4810	⊬	NT NT	+	113	$\vdash\vdash$	NT.	++		\dashv	NT NT			_	
Manganese Mercury	PPM	7439-96-5	0.0113	U N		0,0189	NT NT	377	NT	$\vdash \vdash$	113	NT NT	+	96.7	انا	NT :	+	0.0287	 	NT.	+	138 0,0176		NT	\rightarrow	124 0.0101		NT NT
Nickel	PPM	7440-02-0		_	_			0.039		⊢┼	0.0102 L	/ NT			 		+		\vdash		+		+	NT	_		$\overline{}$	
Potassium	PPM	7440-02-0	12.1: 1780	N N		10.4	NT	25.4	NT	┝╌┼	11.5 1170	NT		7.45	$\vdash \vdash$	NT NT	+	11.8 1150	\vdash	NT_	+++	:8.81 1260	+	NT :		7.25 972		NT
Sodium	PPM	7440-09-7	265	N N		206	NT	1140	NT	⊦⊹⊦		NT:		1270	⊢⊢	. NT	1::	_	\vdash	NT NT	++	679	+	NT		332		NT :
Vanadium	PPM	7440-23-3	203			21.6	NT NT	232	NT	⊢┼	274	NT	-	224	\vdash	NT NT	+	313	⊢-	NT NT	+		+	NT:	_	13.5	$\overline{}$	
Zinc	PPM	7440-62-2	29.9	: N		31,4	NT	18.8	NT	⊢┼	14.5	NT NT	+	16.4	- 	NT NT	+	17.4 30.6	$\vdash\vdash$	NT NT	+-+	18.1 26	- : 	NT NT	_	20.8	o	NT I
Wet Chemistry	TE E IVI	7 440-00-0	23.5	IN	 	1 31,4	NT.	62.1	NT	LI.	24.7	NT	<u> </u>	21.6		NT ;	<u> </u>	30.0	بــــــــــــــــــــــــــــــــــــــ	NT		20		IN I		- LU.U		141 -
Chromium, Trivalent	IDDM T	1606E 02 4 1	15 O		· ·	1 40.0		1 1 100		,			· ·	0.54 -1		NT T	_	0.40		NIT		0.04		NT I		D 44 T	`	NIT I
	PPM	16065-83-1	15.2	N 14		10.9	NT 45.0	18.2	NT	$\vdash \vdash$	8.8	NT:		9.34	$\vdash \vdash$	NT 17	1:	9.19	\vdash	NT	++	9,64		NT :	+	8.41		NT .
Percent Moisture	wt%		13.2	14		10.9	15.2	15.5	9.41	${oxdot}$	13.6	11.5		14.5	 	17 NT	-	9.63	\vdash	16 NT	++	13.2	┵	13.7	-1-	13		12.3
PH TCLP Motolo	pH Unit	<u></u>	7.95	H N		8.09	H NT	7.92	H NT		7.98 F	I NT		7.86	H	NT		8.35		NT ·	$\perp \perp$	6.85		NT	_1_	7.68		NT
TCLP Metals	IDDM I					·				:		<u>, i </u>					-:-		- i-	=			· ;	. N=			 :	
Barium	PPM	7440-39-3	1.15	N.		0.964	NT	0.912	NT	igspace	0.83	NT_		0.938	┞┼┞	NT.	\bot	0.941	$\vdash \vdash$	NT_	44	0.993		NT		0.842		NT
Lead	PPM	7439-92-1	0.731	N.		0.0681	NT	0.12	NT	ŀ	0.0329 J	I NT		0.00598	J	NT		0.139	L	NT		0.056		NT :	0	.00826	J.I.	NT
:										-							-			_								

Notes:
C - Calibration %RSD/%D exceeded for non-COC analytes
H - Holding times for preparation or analysis exceeded
NT - Not tested
U - Indicates that the compound was analyzed but not detected
B - Analyte detected in the associated in the method blank
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New 121st Police Precinct - 970 Sanders Street, Staten Island, NY Excess Soils from Construction Project Table B-1 - Summary of Analytical Results (Detected Analytes Only)

		Sample ID	TP-9C		9G (4')	TP-10C	TP-10G (1.5')											
		Sample Date	12/24/2009	12/24	4/2009	12/24/2009	12/24/2009]						
Analyte	Units	CasNo		Q	7	<u> </u>	Q Q					11						
VOCs														- 1		1		
Acetone	PPB	67-64-1	NT	5	5.7 i	J NT	5.6 U											
Methylene chloride	PPB	75-09-2	NT	2	22 E	3 NT	18 B											
SVOCs					•			i										
2-Methylnaphthalene	PPB	91-57-6	130	U N	TV T	270	U NT I					T					1	
Acenaphthene	PPB	83-32-9	130	UN	VT.	70	J NT									1		
Acenaphthylene	PP8	208-96-8	130	UN	VT	270	U NT					1						
Anthracene	PPB	120-12-7	130	UN	NT	260	J NT					i i				1	11	
Benzo(a)anthracene	PPB	56-55-3	130	UN	NT TV	670	NT									†*****		
Benzo(a)pyrene	PPB	50-32-8	130	U. N	VT TV	530	NT										1 1	
Benzo(b)fluoranthene	PPB	205-99-2	130	U	VT TV	660	NT		Î				1			1	1 1	1
Benzo(g,h,i)perylene	PPB	191-24-2	130	UN	VT.	320	NT										-1 1	
Benzo(k)fluoranthene	PPB	207-08-9	130	UN	VT TV	290	NT		1 -		 	11 1				T	<u> </u>	-1
Bis(2-ethylhexyl)phthalate	PPB	117-81-7	34		VT T	270	U NT	1	7			1-1-1	1		<u> </u>	1		
Butyl benzyl phthalate	PPB	85-68-7	130		VT T	270	U NT	T	1			T	1	<u> </u>	T	1	1	
Carbazole	PPB	86-74-8	130		NT	48	J NT			1		11	1	<u> </u>		1		
Chrysene	PPB	218-01-9	130	UN	NT T	620	NT			1		1 1	1	1			T	
Dibenzo(a,h)anthracene	PPB	53-70-3	130	UN	VT TV	130	J NT	1				1 1					1	
Diethyl phthalate	PPB	84-66-2	130	UN	NT.	270	U NT							1				
Di-n-butyl phthalate	PPB	84-74-2	130	UN	NT T	270	U NT											
Fluoranthene	PPB	206-44-0	22	J N	VT.	1700	NT											
Fluorene	PPB	86-73-7	130	UN	NT T	120	J NT											
Indeno(1,2,3-c,d)pyrene	PPB	193-39-5	130	UN	VT.	410	NT	<u> </u>									1	
Naphthalene	PPB	91-20-3	130	U N	1T	270	U NT					1 1						
Phenanthrene	PPB	85-01-8	130	UN	NT	1100	NT											1
Pyrene	PPB	129-00-0	130	UN	NT.	1100	NT											
Pesticides						•						· · · · · · · · · · · · · · · · · · ·						
4,4´-DDD	PPB	72-54-8	6.1	N	1T	3.7	NT										1	
4,4'-DDE	PPB	72-55-9	1.8	J N	1T	6.5	NT											
4,4´-DDT	PPB	50-29-3	4.1	N	1T	20	NT											
alpha-Chlordane	PPB	5103-71-9	2.2	U N	NT T	2.1	J NT											
gamma-Chlordane	PPB	5103-74-2	2.2	U N	√T	1.2	J NT											
Metals																		
Aluminum	PPM	7429-90-5	10200	N	NT T	8480	NT										· · · · · · · · · · · · · · · · · · ·	
Arsenic	PPM	7440-38-2	4.52		IT T	4.47	NT									1		
Barium	PPM	7440-39-3	50.7	N	IT	56	NT											
Calcium	PPM	7440-70-2	1020	N	11	6350	NT I											
Chromium	PPM	7440-47-3	15.5		IT .	40.4	NT											
Cobalt	PPM	7440-48-4	0.42	U N	1T	1.04	NT											
Copper	PPM	7440-50-8	15.7	N	IT T	25.8	NT											
Iron	PPM	7439-89-6	16400		IT [14800	NT											
Lead	PPM	7439-92-1	15.2	_	IT T	50,3	NT .											
Magnesium	PPM	7439-95-4	3010		IT TI	5260	NT											
Manganese	PPM	7439-96-5	365	N		225	NT											
Mercury	PPM	7439-97-6	0.0213		IT T	0.0633	NT											
Nickel	PPM	7440-02-0	13.1		IT	78.5	NT											
Potassium	PPM	7440-09-7	1720		IT	1080	NT											
Sodium	PPM	7440-23-5	195		IT .	132	NT											
Vanadium	PPM	7440-62-2	27.4		IT _	22.6	NT				l							
Zinc	PPM	7440-66-6	41.8	N	IT]	68.4	NT											
Wet Chemistry								L										
	PPM	16065-83-1	15.5	N		40.4	NT											
	wt%		12.5	12	2.4	13,3	11.1					1						
	pH Unit		6,88	N	IT	7.88	NT											
TCLP Metals								l			` 	<u> </u>		<u> </u>	 	- 		
	PPM	7440-39-3	0.967	N	IT]	1.23	NT					T	T			<u> </u>		
Lead	PPM	7439-92-1		J N		0.0718	NT	 			1 1	 		1	1	1 1		
																		

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